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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,136	11/19/2001	Toshihiro Oouchi	216315US2S	8183
22850	7590	07/31/2006	EXAMINER	
C. IRVIN MCCLELLAND OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NELSON, FREDA ANN	
			ART UNIT	PAPER NUMBER
			3639	

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,136

Applicant(s)

OOUCHI, TOSHIHIRO

Examiner

Freda A. Nelson

Art Unit

3639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendments received on July 7, 2006 is acknowledged and entered. Claims 18 and 20 have been amended. Claims 1-8 and 15-17 have been canceled. Claims 9-14 have been withdrawn. Claims 9-14, 18 and 20 are currently pending.

Response to Amendments and Arguments

Applicant's arguments with respect to claim 18 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 18 and 20 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, claim 18 recites in the preamble "a product manufacturing apparatus cost-estimation apparatus", however, the body of the claim does not contain any limitations indicating the structure of the device. A system or an apparatus claim should always claim the structure or the hardware that performs the function. Applicant's claimed limitations consist of modules (software according to the

specification) that do not describe the structure of the device. Appropriate correction is required.

As for claim 18, the examiner is unable to determine what the applicant is claiming by the claim language a "three dimensional CAD unit".

As for claim 18, the examiner is unable to determine what the applicant is claiming by the claim language "a product manufacturing cost-estimation apparatus" comprising: "a product manufacturing cost-estimation device".

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 18 and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

35 USC 101 requires that in order to be patentable the invention must be a "new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof" (emphasis added). Applicant's claims mentioned above are intended to embrace or overlap two different statutory classes of invention as set forth in 35 USC 101. The claims begin by discussing an apparatus (ex. preamble of claim 18), the body of the claim discusses the specifics of a product manufacturing cost-estimation device, and subsequently the claim then deals with the specifics of sections (software modules) executing programs (see above rejection of claims under 35 USC 112, second paragraph, for specific details regarding this issue). "A claim of this type is

precluded by the express language of 35 USC 101 which is drafted so as to set forth the statutory classes of invention in the alternative only", Ex parte Lyell (17 USPQ2d 1548).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (US PG Pub. 2001/0023418).

As for claim 18, Suzuki et al. disclose a product manufacturing cost-estimation apparatus comprising: a three-dimensional CAD unit that creates three-dimensional CAD model data of a product and adds attribute information to the three-dimensional CAD model data (paragraph [0008]; FIGS. 1 and 3);

a product manufacturing cost-estimation device that is connected to the three dimensional CAD unit (paragraph [0008]; FIGS. 1 and 3);

wherein the product manufacturing cost-estimation device includes:

an estimation element database which stores necessary estimation elements for estimating of manufacturing cost of the product (paragraph [0008]; FIGS. 1 and 3);

a manufacturing process design reference database which stores reference data setting a manufacturing process of the product (paragraph [0121]);

an estimation reference database which stores both an estimation formula to calculate a cost physical unit value in of the manufacturing process by substituting the estimation elements and a physical unit table indicating each value of the estimation elements as a cost physical unit value (paragraph [0008]; FIGS. 1 and 3);

an estimation-element-extracting section which extracts the attribute information added to the three-dimensional CAD model data (paragraph [0029];

a manufacturing process setting section which sets the manufacturing process by searching the reference data for setting the manufacturing process stored in the manufacturing process design reference database (paragraph [0121]; and

a cost physical unit value estimation section which obtains the cost physical unit value of the manufacturing process set by the manufacturing process setting section by calculating the estimation formula stored in the manufacturing process design reference database, the cost physical unit value estimation section including a program auto-creating section which automatically converts a format of the estimation formula, the program auto-creating section including (paragraphs [0104] and [0106]):

a first source-program-creating section which creates a first source program configured to extract the estimation elements from the estimation formula stored in the estimation reference database, and convert the extracted first estimation elements into a format including an identifier and names of the estimation elements by searching the estimation element database (paragraph [0008]; FIG. 9);

a second source-program-creating section which creates a second source program configured to extract the estimation elements from the estimation formula,

convert the first estimation elements in the first source-program-creating section and used to obtain a physical unit value from a physical unit table into the format which can be executed by the programming rule, and the identifier from the physical unit table (paragraph [0008]; FIG. 9); and

a third source-program-creating section which executes the first and second source programs created in the first and second source-program-creating sections, and converts the estimation formula into the format including the names of the estimation elements and the identifier, the cost physical unit estimation section calculating the cost physical unit value by substituting the cost physical unit value in for the estimation formula converted in the third source-program-creating section (paragraphs [0035]-[0036]).

As for claim 20, Suzuki et al. do not expressly disclose the product manufacturing cost-estimation apparatus according to claim 18, wherein:

in a bending process, the estimation formula includes bending-treatment time, a number of occasions and mold-changing unit time;

the bending-treatment time including plate thickness, length and width;

the mold-changing unit time includes the plate thickness, length and width;

the physical unit table stores the plate thickness, length and width;

the first source-program-creating section creates the first source program configured to extract the plate thickness, the length, the width, the number of occasions

and the mold-changing unit time from the estimation formula, converts the plate thickness, the length, the width, the number of occasions and the mold-changing unit time into formats each of which includes the names of estimation elements and the identifier;

the second source-program-creating section creates the second source program configured to convert the plate thickness, length and width of the mold-changing unit time corresponding to the plate thickness, length and width of the physical unit table included in the estimation formula into the formats each of which includes the names of estimation elements and the identifier (paragraph [0008]; FIG. 9); and

the third source-program-creating section executes the first and second source programs created in the first and second source-program-creating sections, and converts the estimation formula including the names of estimation elements of the bending-treatment time, the number of occasions and the mold-changing unit time and the identifier, however claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 582, 531 (CCPA 1959). A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1657 (bd Pat. App. & Inter. 1987). Thus the structural limitations of claim 20 including a physical unit table, the first source-program creating section, the second source-program creating section, and the third source-program creating section are disclosed in Suzuki et al. as

described herein. Also as described, the limitations of the claim do not distinguish the claimed apparatus from the prior art. Suzuki et al. discloses a method and apparatus for estimating a cost of a component product by use of a database that contains, for example, manufacturing conditions of a manufacturing facility, manufacturing time, required expenses and other cost factors necessary for manufacturing the component product (see paragraph [0002]). Therefore, the apparatus in Suzuki et al. is "capable" of estimating cost in a bending process.

Conclusion

3. The examiner has cited prior art of interest, for example:

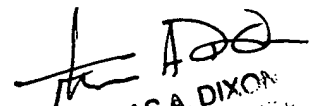
1) Yoshida et al. (US Patent Number 6,535,788), which discloses a machining apparatus.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freda A. Nelson whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FAN 07/21/2006

A handwritten signature in cursive script that reads "Freda Nelson".A handwritten signature in cursive script that reads "Thomas A. Dixon".
THOMAS A. DIXON
PRIMARY EXAMINER